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Petition of Ameritech Corporation )  
to Remove Barriers to Investment in )  
Advanced Telecommunications Capability )

File No. \_\_\_\_\_  
FEDERAL COMMUNICATIONS COMMISSION  
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**PETITION OF AMERITECH CORPORATION**

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<sup>1</sup> "Chairman William E. Kennard Receives Alliance For Public Technology Pioneer Award; Outlines Guidelines for Bandwidth," February 27, 1998.

Congress, as well, has recognized the imperative of regulatory policies that spur investment in advanced data services. To this end, it enacted section 706(a) of the Telecommunications Act of 1996, which requires the Commission, as well as state commissions, to:

encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.<sup>2</sup>

Ameritech now calls upon the Commission to implement the principles outlined by Chairman Kennard and to fulfill its obligation under section 706(a) of the Act. Specifically, Ameritech asks the Commission to take the following measures to encourage the widespread deployment of advanced telecommunications capability. First, the Commission should recognize that the concept of local access and transport areas ("LATAs") is meaningless in the context of high-speed data services, and it should eliminate restrictions that are based on this artificial construct. The most prominent example of such restrictions -- and the one that most impedes investment in the national infrastructure -- is the prohibition on Ameritech's provision of interLATA services under Section 271 of the Act. This prohibition prevents Ameritech from providing regional Internet backbone services and reduces its economic incentive to deploy digital subscriber line services. The Commission should eliminate this prohibition by either:

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<sup>2</sup> Telecommunications Act of 1996, P.L. 104-104, Title VII, Section 706(a).

(i) modifying the definition of a LATA, as permitted under section 3(25) of the Act, to establish a single global LATA for provision of non-circuit switched data services and facilities;<sup>3</sup> or (ii) exercising its forbearance authority with respect to the application of section 271 to such services under section 706(a) of the Act.

Another LATA-based restriction that should be modified to encourage investment in high-speed broadband capabilities is the separation requirements of section 272. These requirements, which apply to Bell Operating Company (“BOC”) provision of interLATA services, unnecessarily raise the cost of deploying and operating a high speed data network. To eliminate this drag on investment incentives, the Commission should modify these requirements, retaining only those that are truly necessary to protect the public interest. In particular, the Commission should replace section 272’s requirements with the separation requirements established in the Fifth Report and Order of the Competitive Carrier Proceeding, which were recently made mandatory for the interLATA offerings of independent incumbent Local Exchange Carriers (“LECs”).<sup>4</sup>

Finally, the Commission should clarify that an affiliate that satisfies the modified separation requirements described in this Petition is not an incumbent LEC for purposes of section 251(c). Such a clarification would be a logical application of section 251(h) of the Act and of the Non-Accounting Safeguards Order, which held that a section 272 affiliate is not a “successor or

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<sup>3</sup> These services and facilities include: packet-switched broadband data services (currently Frame Relay, SMDS and ATM); data networking services, such as Internet Protocol (“I/P”) and transaction services, intranet/extranet services and electronic commerce applications; high-speed broadband transport services that are used as components of switched broadband services; and high-speed end-user access technologies, such as xDSL, including ADSL, when used by customers to connect to the services listed above (hereinafter collectively referred to as “advanced data services”).

<sup>4</sup> If the Commission establishes a single, global LATA for data services, section 272 would not apply, since that provision applies only to interLATA services. If the Commission instead grants section 271 relief through forbearance, it should likewise forbear from applying the full panoply of section 272 requirements.

assign” of a BOC even if it provides its own local exchange service.<sup>5</sup> Additionally, the Commission should clarify that a data affiliate that meets these modified separation requirements shall be deemed nondominant in its provision of interstate services.

## **II. INVESTMENT INCENTIVES ARE NEEDED TO ACCELERATE WIDESPREAD DEPLOYMENT OF ADVANCED TELECOMMUNICATIONS CAPABILITY.**

Of all the component parts of and functions involved in high-speed, packet-switched, broadband communications, two in particular -- high-speed backbone networks and advanced access capabilities, such as Digital Subscriber Loop (“xDSL”) -- lag in deployment and innovation. And, as data and Internet use increases, the circuit-switched networks of the regulated incumbent LECs become increasingly congested. In short, the non-regulated components of the infrastructure flourish while those advanced telecommunications capabilities subject to regulation languish.

### **A. Backbone Networks and Access Technologies**

Semiconductor producers like Intel constantly upgrade their chip designs and capabilities to meet the ever-rising marketplace demand for speed and power. Software developers like Microsoft continue to produce increasingly-sophisticated applications and communications software which not only serves their consumers’ needs, but continually stimulates the development of new customer requirements. Modem and customer premise equipment (“CPE”) manufacturers continue to “stretch the envelope” toward the theoretical limitations of

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<sup>5</sup> Implementation of the Non-Accounting Safeguards of Section 271 and 272 of the Communications Act of 1934, as amended, 11 FCC Rcd 21905 (1996) at para. 309-317.

transmission media, including the LECs' mostly-copper loop plant; 4,800-baud modems are now collectors' items, and 28.8 Kb/sec devices are sure to follow soon. 56 Kb/sec modems, first introduced in 1996, now account for approximately seventy percent of modem sales and are widely available for less than \$100.

By contrast, advanced telecommunications capability continues to be the choke point in data communications. As Bell Atlantic has demonstrated, there is significant congestion even at the highest levels (and fastest links) of the Internet backbone, with the effect that the nationwide average speed for data transmission on the Internet is only 40 Kb/sec.<sup>6</sup> More recently, US West also conclusively demonstrated that rural and smaller community subscribers and Internet Service Providers ("ISPs") face additional chokepoints that slow this traffic even more. Whereas subscribers in large urban areas can connect to multiple and redundant Points Of Presence ("POPs"), smaller communities are generally served by only a single POP, and congestion or a technical failure at that POP may effectively cut them off from the Internet completely. In addition, as US West showed, because rural subscribers and ISPs connect to the backbone lower in the hierarchy, their connections are generally of lower quality and more prone to congestion than similar connections in urban areas, and far more expensive.<sup>7</sup> Due to its widely-varying topology and population concentrations, the backbone congestion in urban areas and lack of connectivity in smaller communities is also a significant concern in the Ameritech region.

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<sup>6</sup> See White Paper, attached to Petition of Bell Atlantic Corporation for Relief from Barriers to Deployment of Advanced Telecommunications Services, CC No. 98-11 (filed January 26, 1998) at 21-27, hereafter "Bell Atlantic Petition").

<sup>7</sup> Petition of US West Communications, Inc. for Relief from Barriers to Deployment of Advanced Telecommunication Services (filed February 25, 1998), at 22-24.

**B. Increased Congestion on the Existing Circuit-switched Network**

It is the common experience of LECs that data services now provide the predominant share of traffic growth -- and increased network congestion -- on the existing circuit-switched network.<sup>8</sup> Much of this congestion results from the fact that the LECs, existing networks were designed to carry a high volume of short holding-time voice calls, rather than the longer holding-time connections which characterize Internet traffic.<sup>9</sup> The continued exponential growth of the Internet is likely to sustain this trend for the foreseeable future. The number of Internet users has roughly doubled for each year from 1995-97, and that rate is expected to continue.<sup>10</sup>

Ameritech's experience bears out these trends. For example, the proportion of all minutes of use on Ameritech's network estimated to be Internet-driven has increased from approximately 9% in March 1997 to over 12% at present. Between November 1996 and March 1997, the number of Internet calls handled by Ameritech grew more than 60%, while total minutes of use for Internet calls grew 80%.

In addition, the traffic characteristics of and types of applications reached by Internet users are shifting, from relatively short, "bursty" communications such as electronic mail and file transfers to real-time applications like packetized voice, audio and video transmission. Such

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<sup>8</sup> The record in the Commission's recent Internet Notice of Inquiry (In the Matter of Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing Usage of the Public Switched Network by Information Service and Internet Access Providers, CC Docket No. 96-262, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, 11 FCC Rcd 21354 (1996), (hereinafter "Internet NOI")) is replete with examples of the types of network congestion fostered by this growth and the shifting usage patterns it brings. See, e.g., *Comments of Pacific Telesis*, pp. 11-14; *Comments of Bell Atlantic/NYNEX*, Att. C.

<sup>9</sup> At present, the average holding time for voice calls using the Ameritech network is slightly more than four minutes, as compared to an average of over 23 minutes per Internet call.

<sup>10</sup> Kevin Werbach, Digital Tornado: The Internet and Telecommunications Policy, OPP Working Paper Series No. 29, FCC, March 1997 (hereinafter "Digital Tornado"), at 21.



applications typically involve much longer, less predictable resource demand, and require the ability to make rapid changes in network configuration as well as sheer network capacity increases.<sup>11</sup> The traffic offered by Internet users consists increasingly of long holding-time data calls, which consume, on a dedicated per-call basis, a relatively high proportion of the network resources which would otherwise be shared among individual calls.

These Internet-related changes in call volumes and characteristics threaten to cause continued significant network congestion. From 1995-1997, Ameritech experienced some 66 major network congestion problems attributable to Internet-related usage. Such problems increased rapidly following the late-1996 adoption of flat-rate pricing policies by major providers of on-line services.<sup>12</sup>

To date, the means employed by LECs to address data-related network congestion problems are largely short-term patches applied as congestion problems arise and intensify. Network-based solutions such as front-end redirection of data calls, circuit emulation and modem pooling (as discussed in the Internet NOI)<sup>13</sup> are reactive measures which do not address the underlying conflict between the traffic offered by today's data users and the main fabric of the LECs' existing networks. This root problem is easy to identify, yet difficult to solve. Put simply, the LEC network is almost entirely a circuit-switched architecture designed primarily to handle a

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<sup>11</sup> R. Bohn, H. Braun, K. Claffy, and S. Wolf, "Mitigating the Internet Crunch: Multiple Service Levels Via Precedence;" University of Southern California, San Diego/SanDiego Supercomputer Center/National Science Foundation, Nov. 25, 1994.

<sup>12</sup> A single such incident in Downers Grove, Illinois required the addition of three switch modules and fourteen line units on an emergency basis, and a complete rebalancing of the line side of the switch involved. Total cost of these remedial efforts for this incident exceeded \$1.6 M.

<sup>13</sup> See *supra*, n. 8.

high volume of short holding-time voice calls. Conversely, today's traffic load is comprised of a rapidly-increasing proportion of longer holding-time data calls. Without incentives to deploy longer-term solutions to this root problem, network congestion will continue to occur and increase.

### **III. CERTAIN REGULATORY REQUIREMENTS REDUCE AMERITECH'S INCENTIVE AND ABILITY TO MAKE THE NECESSARY INVESTMENT**

The only clearly effective solution to this inherent mismatch between the embedded circuit-switched network and the ever-expanding high-speed broadband needs of customers is enormous new investment in packet data capability. Ameritech has already made a significant investment in such facilities, but its incentives to invest further are constrained by regulatory requirements that (i) unnecessarily preclude its provision of Internet backbone services; (ii) deny it the ability to meet customers' needs for end-to-end high-speed data services; and (iii) add to the costs of investing in high-speed broadband data services. These effects of misplaced regulatory policies were recently described in a Hudson Institute paper, which observed:

[W]idespread deployment will require considerable capital investment. Putting capital at risk in a technologically dynamic market place, and a market place where consumer preferences are not known, entails substantial risks. Unfortunately, the government apparatus . . . has not yet adapted to the challenge of the Internet revolution. . . . Given all [the] current economic and regulatory uncertainties, it is not surprising that the local operating companies have been reluctant to put their shareholders' capital at risk to deploy new broadband services in a massive way.<sup>14</sup>

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<sup>14</sup> Thomas J. Duesterberg, Addicted to Data: The Need for More Bandwidth on the Information Superhighway, Hudson Institute, Jan. 1998, at 1, 9.

To eliminate this regulatory “drag” on infrastructure investment, Ameritech proposes that the Commission take the steps outlined below. These measures include immediate section 271 relief for Ameritech’s broadband data services, elimination or modification of any structural separation requirements that might apply, and clarification that a broadband affiliate that complies with the modified separation requirements is nondominant in its provision of interstate advanced data services and is not an “incumbent LEC” for purposes of the 1996 Act. These measures will eliminate unnecessary regulatory shackles that eliminate incentives for investment in advanced capabilities. They will unleash the power of the marketplace to spawn new investment, helping to bring the promise of advanced telecommunications capability to all consumers in the Ameritech region.

**A. Section 271 InterLATA Prohibition**

The most significant disincentive to investment in broadband facilities and networks is the prohibition under section 271(a) on BOC provision of interLATA services. Among other things, this provision bars Ameritech from providing Internet backbone services. Yet, as Bell Atlantic noted in its recent Petition, there is significant congestion even at the highest levels and fastest links of the Internet backbone. Moreover, as Bell Atlantic observes, “[w]ith the backbone infrastructure choked at the lower speeds, the investment-inhibiting effects cascade down through all the steps needed for data transmission.”<sup>15</sup>

The recent merger of MCI and WorldCom only promises to exacerbate the problem. With a dominant share of the Internet backbone market, the new merged entity will have little incentive to expand backbone capacity or to make such capacity available at reasonable rates. Additional

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<sup>15</sup> Bell Atlantic Petition, at 13.

investment in Internet backbone facilities is desperately needed, as are additional players in the backbone marketplace. A fully-competitive backbone market will permit deployment of additional capacity, thereby eliminating congestion and permitting higher transmission speeds while exerting downward pressure on transmission prices. This additional capacity will, in turn, create synergies that spur investment down the line, helping to foster what former Chairman Hundt described as the Commission's objective: a "high-speed, congestion-free, always reliable, friction-free, packet switched, big bandwidth, data friendly network that is universally available, competitively priced, and capable of driving our economy to new heights."<sup>16</sup>

The interLATA prohibition also eliminates incentives for investment in digital subscriber line ("xDSL") technology, which can eliminate the most significant choke point in data communications: congestion in LEC networks. Through xDSL technology, customers can use existing copper loops to provide high-speed data communications, and they can do so without interfering with the carriage of voice. This technology thus permits super-fast access to the Internet, while simultaneously reducing congestion on the circuit-switched network. For example, Ameritech's Asymmetrical Digital Subscriber Loop ("ADSL") technology enables customers to connect to the Internet at speeds up to fifty times faster than a standard telephone line and modem. Deployment costs, however, are huge, and the investment risks substantial. This is because consumer demand for xDSL services is untested and competing providers, including cable companies, terrestrial wireless, and satellite providers are entering the Internet access market.

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<sup>16</sup> "The Internet: From Here to Ubiquity," Speech by former FCC Chairman Reed E. Hundt, The Institute of Electrical and Electronics Engineers, The Symposium on Hot Chips, August 26, 1997.

If Ameritech is to assume the risks of this significant investment, it must be able to take proper advantage of the benefits offered by this technology through its full participation in the broadband marketplace. The interLATA prohibition denies it this ability, sharply circumscribing any prospect of a reasonable return. Indeed, the interLATA prohibition actually diminishes incentives to deploy ADSL technology by denying Ameritech the ability to aggregate traffic across LATA boundaries, and raising costs and consumer prices.

Yet the interLATA prohibition is grounded in a concept -- the LATA -- that is utterly meaningless in the packet-switched world. Unlike circuit-switched networks, packet-switched networks are connectionless. Instead of establishing an end-to-end transmission path, routers calculate the best routing for a packet at a particular moment in time, given current traffic patterns, and transmit that packet accordingly.<sup>17</sup> Even two packets from the same message may not travel the same physical path through the network: one may travel five miles, the other 500. In this respect, routing over a packet-switched network transcends all notions of geographic boundaries, including LATAs. As one commenter put it:

[d]igital data networks and services defy most attempts at regulatory cartography. On the Internet, for example, it is almost impossible to track where 'calls' originate, what communications paths are traveled, or where information is ultimately delivered or consumed. Content is readily hybridized; a display on a single computer can be synthesized out of data residing on, and delivered from, any number of others, located anywhere on the globe.<sup>18</sup>

These observations were echoed in an FCC Office of Plans and Policy Working Paper:

Unlike the voice network, which has evolved under the federal-state framework of the Communications Act of 1934, the Internet has no build-in jurisdictional

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<sup>17</sup> Digital Tornado, at 17.

<sup>18</sup> "The Incidental, Accidental Deregulation of Data . . . and Everything Else," Evan Leo and Peter Huber (Oct. 1997), at 35.

divisions. More important, because the Internet is a dynamically routed, packet-switched network, only the origination point of an Internet connection can be identified with clarity. Users generally do not open Internet connections to “call” a discrete recipient, but access various Internet sites during the course of a single connection. A voice call originates and terminates at two discrete points, and therefore calls can readily be assigned into jurisdictional categories such as local, intraLATA toll, interLATA intrastate, interLATA interstate, intraLATA interstate, and international.

... For an Internet connection, by contrast, the user may have no idea where the sites he is viewing are located. One Internet “call” may connect the user to information both across the street and on the other side of the world.

Furthermore, dynamic routing means that packets may take different routes across the Internet to reach the same site, so even the location of the site the user is contacting does not provide sufficient information to identify the routing of the call for jurisdictional purposes.<sup>19</sup>

Because the concept of a LATA is meaningless in the packet-switched world, there is absolutely no reason for the Commission to base regulatory policy for broadband services on this artificial, anachronistic legal construct. Indeed, to cling to this construct would be a direct abrogation of the Commission’s obligation under section 706(a) to remove barriers to infrastructure investment. It would also be directly contrary to the principles articulated by Chairman Kennard last week.<sup>20</sup>

The 1996 Act expressly confers upon the Commission authority to approve modifications to LATA boundaries. Section 3(25) of the Act defines LATAs as those existing on the date of enactment of the 1996 or as “established or modified by a Bell operating company after such date of enactment and approved by the Commission.”<sup>21</sup> The Commission should exercise this authority by adapting the LATA concept to the realities of packet-switched networks. It should

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<sup>19</sup> Digital Tornado, at 45.

<sup>20</sup> Supra, n. 1.

<sup>21</sup> 47 U.S.C. 153(25).

hold that there is only one, global LATA for packet-switched services, thereby freeing Ameritech from the interLATA restriction that cramps investment incentives and stunts the widespread deployment of advanced broadband facilities and services.

This adaption of the LATA concept to broadband services would in no way undermine the purposes or the efficacy of section 271 generally. Ameritech remains fully committed to meeting section 271 requirements at the earliest possible date so that it may participate fully in the long-distance market, and the limited relief it seeks here in no way changes that commitment. It is intent on providing not only packet-switched data services, but also circuit-switched voice-grade service to its customers. Indeed, it must do so if it is to meet its customers' demand for integrated service packages.

Nor is this Petition inconsistent with the reasoning underlying the Commission's decision last year that states may not redefine LATA boundaries to make them coincident with state boundaries.<sup>22</sup> That decision rested on the Commission's conclusion that it retains exclusive jurisdiction to establish or modify LATA boundaries and that it had not delegated any such authority to the states. Moreover, in addressing the legal and policy arguments raised by this Petition, the Commission made clear that it was considering the issue exclusively with reference to traditional, circuit-switched services. Indeed, in contrast to the situation presented here, the Commission noted that "intrastate LATA boundaries continue to serve a pro-competitive purpose." No such conclusion could be reached in the context of packet-switched data services, which inherently defy LATA boundaries.

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<sup>22</sup> Petition for Declaratory Ruling Regarding US West Petitions to Consolidate LATAs in Minnesota and Arizona, Order, NSD-L-97-6, DA 97-767 (rel. April 21, 1997), at para. 27.

Establishing a single global “data LATA” is the most intellectually pure approach, given the dynamic nature of packet-switched routing and the impossibility of viewing Internet transmissions in geographic terms. However, this is not the only avenue by which the Commission can provide section 271 relief. Alternatively, the Commission can exercise the forbearance authority conferred by section 706(a) with respect to advanced data services. As noted earlier, section 706(a) directs the Commission to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability”, and it specifically instructs the Commission to utilize regulatory forbearance to this end, if consistent with the public interest, convenience, and necessity. There is no conceivable public interest justification for retaining LATA-based restrictions in the context of services that defy geographical classifications. In light of the chilling effect these restrictions have on infrastructure investment, Ameritech submits that the Commission is not merely permitted, but compelled, to eliminate those restrictions in the limited contexts raised in this Petition.<sup>23</sup>

**B. Section 272 Separation Requirements**

The structural separation requirements of section 272 are another significant impediment to Ameritech’s investment in advanced telecommunications capabilities. Like the interLATA restriction in section 271, section 272 structural separation requirements are based upon a legal construct --the LATA -- that is meaningless in the emerging packet switched world. Ameritech submits that the regulatory safeguards applied to its provision of advanced data

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<sup>23</sup> Ameritech recognizes that the Commission is not free to forbear from applying section 271 in response to a Petition brought under section 10 of the Act. Section 706(a), however, represents an independent grant of forbearance authority that is not so limited. Insofar as this Petition is brought under section 706(a) and directly furthers of the goals of that provision, the Commission is free to grant the forbearance relief requested herein. See Section V infra.



services should not be dictated by artificial and anachronistic concepts, such as the distinction between intra- and interLATA services, which were developed to address competitive concerns posed by the provision of different types of services, using a different network under significantly different market conditions.<sup>24</sup> Rather, the Commission should establish safeguards that account for the unique characteristics of, and considerations relevant to, data networks.<sup>25</sup> These considerations include Congress's mandate in section 706 that the Commission eliminate barriers to infrastructure investment in order to encourage the deployment of advanced telecommunications capability.

Section 272 is inconsistent with this goal. Applied to Ameritech's provision of advanced data services, it would significantly increase Ameritech's costs of designing and operating a broadband network by necessitating the deployment of duplicative operations and personnel, and denying Ameritech the ability to take advantage of the efficiencies and synergies inherent in integrated operations. As the Commission has long recognized, structural separation

imposes opportunity costs by discouraging the BOCs from designing innovative enhanced services that utilize the resources of the public switched network. Such innovation losses, resulting from the physical, technical, and organizational constraints imposed by the structural separation requirements, directly harm the public, which does not realize the benefits of new offerings.<sup>26</sup>

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<sup>24</sup> See Digital Tornado, at 1 ("[T]he Internet is fundamentally different from . . . other communications technologies. In most cases, simply mapping the rules that apply to other services onto the Internet will produce outcomes that are confusing, perverse, or worse.").

<sup>25</sup> *Id.*, at 33 ("Because of the unique characteristics of the Internet, . . . [the Commission's traditional legal] frameworks may produce unintended results when applied to Internet-based services. Discussions of the [legal and regulatory] status of ISPs or specific Internet services should not be based solely on abstract legal analysis, but rather should take into account the real-world implications of such decisions.").

<sup>26</sup> Computer III Phase I Order, 104 FCC 2d 958, 1007, para. 89. See also In the Matter of Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services, CC Docket No. 95-20, Further Notice of Proposed Rulemaking, FCC 98-8 (rel. January 30, 1998) (hereinafter "Computer III Remand Order"), at para. 56.

More specifically, section 272 would require Ameritech to establish a separate affiliate that would, *inter alia*, be precluded from sharing any employees or operations with an Ameritech operating company, and, therefore, to establish and maintain inefficient, redundant operations. For example, section 272(b)(1) would preclude an Ameritech operating company, or any of its affiliates, from providing operating, installation, or maintenance services to, or on behalf of, the data affiliate,<sup>27</sup> thus denying the data affiliate the expertise of operating company personnel. Additionally, the comprehensive nondiscrimination requirements of section 272(c) would impede an Ameritech operating company's ability to share administrative services with a data affiliate by requiring the operating company to make all such services available to unaffiliated data services providers on the same rates, terms, and conditions on which they are provided to the data affiliate.<sup>28</sup> Consequently, saddling Ameritech's data services operations with the stringent separation requirements mandated by section 272 would significantly increase the already-substantial costs of building and operating advanced data networks,<sup>29</sup> and, therefore, dampen Ameritech's incentive to construct such facilities.<sup>30</sup> Section 272, therefore, cannot be reconciled

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<sup>27</sup> Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905 (rel. December 24, 1996) (hereinafter "Non-Accounting Safeguards Order"), at para. 158.

<sup>28</sup> Id., at para. 202. See also id., at para. 217 (holding that a BOC must make available to "unaffiliated entities the same goods, services, facilities, and information that it provides to its section 272 affiliate at the same rates, terms, and conditions," and rejecting arguments that the term "services" should exclude administrative and support services).

<sup>29</sup> In contrast, Ameritech's competitors in the data services market are permitted to operate on a fully integrated basis, and, accordingly, are not burdened by these costs.

<sup>30</sup> Ameritech's provision of high-speed data services stands in stark contrast to the circuit-switched interLATA services that must be provided through a section 272 affiliate because the BOCs can provide such services through resale, and, therefore, without significant investment in new facilities.

with either Congress's mandate in section 706, or the principles recently articulated by Chairman Kennard.

Nor is the imposition of the full spectrum of section 272 restrictions in any way necessary to protect the public against discrimination and cross-subsidization. For one thing, packet data services are not comparable to other long distance services. While the Commission has stated that it expects the BOCs to be formidable competitors in the long distance market because of their strong brand recognition and other significant advantages from incumbency,<sup>31</sup> such advantages benefit Ameritech's competitors in this context because the vast majority of consumers of Internet and other data services purchases such services from other service providers with strong brand recognition, like AOL, UUNET and others.

Moreover, as both the Commission and the Department of Justice have acknowledged, Ameritech has made significant strides in opening its local network to competition,<sup>32</sup> particularly with respect to those aspects of the local network that are most critical to competing advanced data service providers, such as unbundled loops, collocation, and access to Ameritech's operations support systems. This progress is clearly demonstrated by the explosive growth in the number of unbundled loops, end office integration trunks, and resold lines provided by Ameritech. For example, between February 1996 and December 1997, the number of unbundled loops provided by Ameritech grew from less than 10,000 to almost 69,000. By December 1997, Ameritech was providing over 95,000 end office integration trunks, and almost 500,000 resold

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<sup>31</sup> In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, to Provide In-Region InterLATA Services in Michigan, CC Docket No. 97-137, Memorandum Opinion and Order, FCC 97-298 (rel. August 19, 1997) (hereinafter "Ameritech Michigan Order"), at para. 15.

<sup>32</sup> Id., at para. 2-3.

lines. Ameritech was, moreover, providing physical and virtual collocation at 265 sites throughout its territory. The Ameritech operating companies are, therefore, firmly committed to fulfilling their interconnection and unbundling obligations under section 251(c) as incumbent LECs.

Ameritech emphasizes, in this regard, that it is not seeking through this Petition to remove the section 251(c) unbundling and resale requirements from those local exchange facilities that may be used to provide both voice and data services. For example, this Petition does not suggest that it should not be required to unbundle copper loops simply because they can be conditioned to provide advanced services such as xDSL, in addition to basic voice telephone services. Nor does it suggest that it should not be required to offer collocation to data service providers for interconnection or access to unbundled network elements. Indeed, Ameritech will continue to work with unaffiliated data service providers to ensure that they can interconnect with, and obtain unbundled access to, its local exchange facilities consistent with the requirements of section 251(c).

Consequently, whatever control over so-called bottleneck local exchange facilities Ameritech may once have had has been largely dissipated. Thus, even if local exchange facilities are essential to the provision of high speed data services, Ameritech cannot directly or indirectly restrict competition in the data services market. For this reason alone, section 272 restrictions go well beyond what is reasonably necessary to prevent, or reduce the risk of, any cross-subsidization or discrimination posed by Ameritech's provision of advanced data services. To the extent the Commission believes that safeguards may be necessary, for some period of time, to address concerns regarding cross-subsidization and discrimination, a far more appropriate balance would be to adopt the less onerous separation requirements adopted in the Competitive Carrier, Fifth

Report and Order,<sup>33</sup> as modified in the LEC Classification Order,<sup>34</sup> which would be more than sufficient to prevent such conduct. Thus, even assuming that Ameritech retains control over facilities essential to the provision of high speed data services, it could not successfully engage in cross-subsidization, discrimination, or other anticompetitive conduct that could allow it to undermine competition in the high-speed data services marketplace if the Commission adopts the modified Fifth Report and Order separation requirements, as proposed by Ameritech.

The Commission also has previously acknowledged that price cap regulation of exchange and exchange access services reduces a local exchange carrier's incentive to cross-subsidize an affiliate.<sup>35</sup> As the Commission has explained, [b]ecause price cap regulation severs the direct link between regulated costs and prices, a carrier is not able automatically to recoup improperly allocated nonregulated costs by raising basic service rates, thus reducing the incentive . . . to shift

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<sup>33</sup> Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor, CC Docket No. 79-252, Fifth Report and Order, 98 FCC2d 1191 (1984) (hereinafter "Competitive Carrier, Fifth Report and Order" or "Fifth Report and Order"). The Fifth Report and Order identified three separation requirements with which an independent LEC must comply to qualify for nondominant treatment. In order to qualify for nondominant treatment under the Fifth Report and Order, an independent LEC affiliate providing in-region, interstate, interexchange services was required: (1) to maintain separate books of account; (2) not to own joint transmission and switching facilities with the LEC; and (3) to acquire any services from its affiliated exchange companies at tariffed rates, terms and conditions. *Id.*, at 1198.

<sup>34</sup> Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area; Policy and Rules Concerning the Interstate, Interexchange Marketplace, CC Docket Nos. 96-149, 96-61, Second Report and Order in CC Docket No. 96-149, Third Report and Order in CC Docket No. 96-61, FCC 97-142 at para. 173 (rel. Apr. 18, 1997) (hereinafter "LEC Classification Order"). In the LEC Classification Order, the Commission modified the third Fifth Report and Order requirement to allow independent LECs to take exchange services not only by tariff, but also on the same basis as requesting carriers that have negotiated interconnection agreements pursuant to section 251. *Id.*, at para. 164. The Commission further determined that, in addition to taking exchange services pursuant to tariff, a "LEC may alternatively take unbundled network elements or exchange services for the provision of a telecommunications service, subject to the same terms and conditions as provided in an agreement approved under section 252 to which the independent LEC is a party." *Id.*

<sup>35</sup> LEC Classification Order, at para. 106.

nonregulated costs to regulated services.<sup>36</sup> Moreover, the incentive to misallocate costs is, as the Commission recognizes, effectively eliminated under a pure price cap regime, with no sharing of earnings.<sup>37</sup> Because Ameritech operates under a pure price-cap regime at the federal level, as well as in each of the five states in its region, it would have no incentive to misallocate to regulated services the costs of providing advanced high speed data services.

At the same time, the modified Fifth Report and Order separation requirements would substantially reduce, if not eliminate altogether, any risk of cross-subsidization or misallocation of costs. Pursuant to these requirements, Ameritech's data services affiliate would be required to maintain separate books of account, which would enable regulators to trace and document any improper allocation of costs. In addition, the affiliate would be prohibited from jointly owning switching and transmission facilities with an Ameritech operating company, reducing the risk of improper allocations of the costs of common facilities between an Ameritech operating company and a data affiliate. These requirements, when coupled with price cap regulation, would provide ample protection against any risk of cross-subsidization.

Ameritech would also have little, if any, ability to discriminate against unaffiliated providers of advanced data services because the modified Fifth Report and Order separation requirements would effectively prevent such anticompetitive conduct. Specifically, the separate books of account requirement would facilitate the detection and documentation of any discriminatory conduct, while the prohibition on jointly-owned switching and transmission facilities would deter discrimination by requiring a data affiliate to follow the same procedures as

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<sup>36</sup> Id. (citing Amendment of Section 64.702 of the Commission's Rules and Regulations, CC Docket No. 85-229, BOC Safeguards Order, 6 FCC Rcd 7571, 7596, para. 55 (1991), vacated in part and remanded on other grounds, California v. FCC, 39 F.3d 919 (9th Cir. 1994), cert. Denied, 115 S. Ct. 1427 (1995)).

<sup>37</sup> Policy and Rules Concerning Rates for Dominant Carriers, 4 FCC Rcd 2873, 2924 (1989).

unaffiliated service providers to obtain access to such facilities. In addition, requiring a data affiliate to take any services or facilities obtained from an affiliated exchange company at tariffed rates, terms and conditions, or on the same basis as requesting carriers that have negotiated interconnection agreements pursuant to section 251, will effectively prevent discrimination against unaffiliated data service providers.

Even if Ameritech could, and did, discriminate, it could not be sure that it would benefit from the discrimination. In order to be successful, such discrimination would have to be noticeable to customers of an unaffiliated data service provider. Such a customer, however, might well assume that any service problems associated with the discrimination were the fault of Ameritech, and therefore decide not to purchase the services of an Ameritech data affiliate. Even if a customer did not blame Ameritech for such problems, there is no reason to assume that it would switch to Ameritech's data affiliate. Such a customer might just as likely switch to another, more well-known data service provider, like AOL, UUNET, MFS, or MCI. Only if customers knew that Ameritech was discriminating against all unaffiliated data service providers would they be more likely to switch to Ameritech's affiliate. But in that event, such discrimination would be readily apparent to regulators and competitors.<sup>38</sup>

Although discrimination and cross-subsidization may theoretically be possible, the threat of such anticompetitive conduct would be effectively dissipated if the Commission were to adopt the modified Fifth Report and Order separation requirements for Ameritech's provision of high

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<sup>38</sup> See United States v. Western Electric Co., 993 F.2d 1572, 1579 (D.C. Cir. 1993), cert. Denied, 114 S. Ct. 487 (1993) ("information service giants operating throughout the country . . . will notice any discrepancies in treatment by the various BOCs and will have the capacity and incentive to bring anticompetitive conduct to the attention of regulatory agencies").

speed data services as proposed above. The Commission should, therefore, eschew the application of section 272 to Ameritech's provision of advanced data service, and, consistent with Congress's mandate in section 706, apply the less onerous modified Fifth Report and Order separation requirements to such services.

**C. The Commission Should Clarify that A Data Affiliate that Meets the Modified Separation Requirements is Not an Incumbent LEC and is Nondominant in its Provision of Interstate Services.**

Two other significant potential barriers to investment in high capacity broadband facilities are: (i) section 251(c) obligations which are imposed on incumbent LECs; and (ii) dominant carrier regulation, which limits pricing flexibility. As noted above, Ameritech's deployment of high-speed backbone transport facilities and implementation of advanced end-user access technologies such as xDSL will require enormous investments. Fiscal responsibility to its shareholders dictates that Ameritech can only make such investments if it expects to earn a reasonable return on them. That would not be the case if the requirements of section 251(c) applied to Ameritech's deployment of high-speed data facilities and services.

First, under section 251(c)(3), Ameritech would be obligated to provide competitors with access to new facilities that were deemed network elements on a Total Element Long Run Incremental Cost ("TELRIC") basis, which permits only the recovery of forward-looking incremental costs. Requiring Ameritech to provide elements of its infrastructure on a TELRIC basis in today's competitive marketplace for advanced telecommunications capability would effectively eliminate incentives to undertake such a major investment. Former Common Carrier Bureau Chief Kathleen Wallman recently put it this way:

Do we really mean to say that any carrier that is thinking of building a new broadband network should count on being able to recover, from day one of operation, only the forward looking costs of their brand new network? I don't



think so. No rational, efficient firm would take that deal. And that would be our collective loss, not just theirs.<sup>39</sup>

Second, applying the unbundling requirements of the 1996 Act to advanced end-user access services such as xDSL would also introduce service quality problems into the public switched network. One major customer benefit of xDSL service is that it permits the provision of both high speed data and voice transport services over an existing single copper pair; no second line need be purchased, installed or maintained. Since the Act requires that access to network elements be provided "at any technically feasible point,"<sup>40</sup> a competitor could arguably demand access to only the data bandwidth, or only the voice bandwidth, of Ameritech's loop facilities used to serve a customer. Such frequency unbundling arrangements would create ideal technical conditions for crosstalk, interference and other service problems, with the concurrent impossibility of identifying the party responsible for the customer's service problems -- particularly if different competitors purchased the data and voice capability from Ameritech. The possibilities for finger-pointing are limitless.

In addition, the resale obligation imposed by the 1996 Act<sup>41</sup> puts Ameritech in the position of knowing that it cannot possibly differentiate its advanced data services from those of its competitors. As discussed below, this would discourage innovation by Ameritech in advanced telecommunications capability since it alone would bear the entire risk of investment in its new service offering -- to be sold by its competitors as well -- without any assurance of customer

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<sup>39</sup> Remarks of Kathleen Wallman to the Annual Convention of the National Association of Regulatory Utility Commissioners, Boston, MA, November 11, 1997 (emphasis in original).

<sup>40</sup> 47 U.S.C. 251(c)(3).

<sup>41</sup> 47 U.S.C. 251(c)(4).